

What Sterile Processors Need to Know and Do: A Ten Year Analysis of Accreditation in the United States

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Need

- Sterile Processing personnel perform essential duties; can affect patient outcomes
- Proper procedures can prevent nosocomial infections/employee injury
- More sophisticated instruments and sterilization technologies
 - Minimally invasive instruments
 - Robotics

Need

- More sophisticated chemicals and sterilants
- More sophisticated surgical instruments
 - Some defy cleaning!
- National attention to medical errors
 - Improperly cleaned/sterilized items
- Lack of vocational training
 - All done on the job

Need

- Lack of trained staff
- More responsibility, fewer people
- Less capital dollars for equipment
- Fewer people entering profession
- Higher turn-over rates (wages so low that people do not stay)

Background

- In August 1988, the National Institute for the Certification of Healthcare Sterile Processing & Distribution Personnel was formed
- Independent certification board; own board of directions, Bylaws; is financially independent

Background

- The first step: find a professional testing company to lead in the process
- Educational Testing Service, Princeton, NJ was selected
- All testing services now provided by the professing testing agency, Thomson Prometric

Background

- It became evident early on that certification had many legal aspects
- Contracting with professional testing agencies critical
- The Certification Board elected to comply with all the Guidelines for standardized testing

Background

- These Guidelines are developed by the National Organization for Competency Assurance (NOCA)
 - Are the most detailed
 - Ensure a certification program that is competency-based, fair, equitable and legally defensible

Background

- The Certification Board also joined NOCA
 - Keeps the Board informed of all changes in guidelines for certification
 - CBSPD attends all NOCA annual Meetings and have done so since 1991
- The first step in the process was to analyze the job for the technician examination

Background

- It was decided to develop the technician examination first
 - Technicians are the front line people who do the work
- First the knowledge and skills needed for competent performance of a technician with one year's experience, had to be established
- Over 1,500 hospitals in the U.S. were surveyed in 1989

Background

- There was a 60% response rate to the survey - the highest rate seen in the U.S.
- The data collected was tabulated and a report completed by Educational Testing Service, which conducted the survey

Technician Competencies -Roles and Responsibilities

- Knowledge of
 - purpose of SPD Dept.
 - functions of the sterile processor
 - professional standards and ethics
 - health and safety related to environment and hazards such as fire, electrical, biohazard, etc.

Life Sciences Competencies

- Knowledge of
 - anatomy and physiology related to basic body structure, systems and tissue
 - microbiology related to basic microbiological concepts (e.g. bioburden, storage conditions, disease transmission, etc.)

Decontamination Competencies

- Decontamination - 6 basic competencies
- 1. Knowledge of
 - function of Decontamination
 - dress code-Standard precautions
 - selection and use of chemicals

Decontamination Competencies

- Decontamination (continued)
- 4. Knowledge of
 - responsibilities for all decontamination activities
 - factors to be considered in mechanical and manual cleaning procedures
 - chemical disinfection of patient care devices

Decontamination Tasks

- Select cleaning process and level of decontamination required
- Sort instrumentation and equipment
- Select and mix chemical disinfectants
- Handle and dispose of biohazardous and medical waste
- Report damage/missing components of equipment, instruments, devices

Sterilization Competencies

- Identify basic maintenance requirements for sterilization equipment
- Understand process by which microorganisms are inactivated by the sterilization process
- Knowledge of factors and parameters of sterilization (gravity/pre-vac/flash/pulse)

Sterilization Competencies

- Knowledge of factors and parameters related to
 - EO sterilization
 - Dry heat sterilization
 - Liquid chemical sterilization
 - Gas plasma sterilization

Prep and Handling Competencies

- Knowledge of
 - instruments by function grade, finish
 - proper care, handling, assembly and sterilization of devices
 - various instruments by specialty
 - basic principles of packaging

Prep and Handling Competencies

- Identify necessary characteristics of packaging materials used for sterilization
- Knowledge of methods used to wrap and close items for sterilization
- Knowledge of containerized packaging systems

Sterile Storage & Distribution Competencies

- Recognize determining factors which affect shelf life
- Knowledge of
 - stock rotation
 - compliance with environmental requirements for sterile storage

Sterile Storage & Distribution Competencies

- Knowledge of
 - proper techniques for handling and transporting sterile packs
 - inventory control and distribution systems

Sterile Processing Competencies Managers and Supervisors

- Anatomy, Microbiology, Infection Control
- Administration of Central Service Procedures
- Inventory Control and Distribution
- Fiscal Management
- Personnel Management
- Compliance with Standards
- SPD/CS Responsibilities

What is the CBSPD?

- In 2003, the NICHSPDP changed its name to THE CERTIFICATION BOARD FOR STERILE PROCESSING AND DISTRIBUTION, INC.
- Free standing certification board in the USA providing international certification for sterile processing personnel

Changes

- The name reflects the world-wide influence of the CBSPD for sterile processing certification
- To date, the CBSPD has been administered in the United Arab Emirates, Canada, Saudi Arabia, Cayman Islands, Bahamas, India, Guam, South Africa, Mexico, Thailand and New Zealand

Developing the Exam

- Once the Job Analysis was completed, the data was used to develop the first exam
 - Identified key content areas
- Group of sterile processing professionals met to develop questions based upon the Job Analysis

Examination

- The first technician exam was administered in April 1991 at 82 test sites in the U.S.
- Since that time, the exam has been administered each April and October throughout the U.S. and at numerous international sites as well as U.S. military bases around the world

Examination Results

- Since the first exam the pass rate has been consistently at 70-80% (technicians)
- The exam can be taken as many times as requested
- Over 12,000 technicians have been certified since April 1991
- Fee for exam is \$115 UDS which includes certification for 5 years upon passing

The Technician Job Analysis

- Used to define competencies (knowledge and skills) for competent performance
- Validity of certification requirements and examination procedures must be established with a Job Analysis Survey
- Performed by CBSPD in 1989 (technician) and in 1993 (supervisor and manager) - all were updated again June 2001

Exam Content 1990 - 2001

| | 1990 | 1996 | 2001 |
|-------------------------------------|------|------|------|
| Roles & Responsibilities | 30 | 25 | 18 |
| Life Sciences | 15 | 10 | 10 |
| Decontamination | 20 | 20 | 22 |
| Sterilization | 20 | 20 | 20 |
| Preparation/Handling | 15 | 15 | 18 |
| Sterile Storage/Distribution | | 10 | 12 |
| | 100 | 100 | 100 |

Changes

- The 1996 Job Analysis recommended
 - Including low temperature gas plasma technology to the knowledge areas
 - Including questions on CJD and prions
 - Including Rapid readout BI information
- The 2001 Job Analysis recommended
 - Processing requirements for CJD contaminated items
 - AAMI re-classification of chemical indicators
 - Cidex OPA
 - Reuse of single use devices regulations

Current Technician Exam Content

- 125 multiple choice questions – 2.5 hours to complete the exam
- Roles and Responsibilities - 18% of exam
- Life Sciences – 10%
- Decontamination - 22%
- Sterilization - 20%
- Preparation and Handling - 18%
- Sterile Storage and Distribution - 12%

Exams

- In October 1994 the first Supervisor exam was offered
- In May 1995 the first Manager exam was offered
- Each exam contains 175 multiple choice questions
- Content areas for the exam determined by the Job Analysis for each title

Current Supervisor Examination

- 175 multiple choice questions - 3.5 hours
- Fiscal Management - 5% of exam
- Personnel Management - 14%
- Compliance with Standards - 15%
- SPD Responsibilities - 23%
- Anatomy/Micro/ Inf. Control - 12%
- Administration of SPD - 19%
- Inventory Control and Distribution - 12%

Current Manager Exam

- Fiscal Management - 13% of exam
- Personnel Management - 14%
- Compliance with Standards - 18%
- Anatomy/Micro/ Inf. Control - 10%
- Administration of SPD - 15%
- Inventory Control and Distribution - 10%

Current Surgical Instrument Exam

- Focuses on identification and processing of surgical instruments and devices including flexible fiber optic scopes
- Job Analysis completed in 2001 and exam first administered in October 2002.

Surgical Instrument Technician Certification Exam

- Surgical Instrument Processing
- 100 multiple choice questions
- Care, handling and testing of instruments and devices
- Decontamination
- Sterilization
- Names of instruments
- Configuration of sets

Surgical Instrument Technician Exam

- 100 multiple choice questions
 - 30% Decontamination of instruments
 - 35% preparation, packaging, identification of instruments
 - 25% sterilization of instruments
 - 10% general knowledge

New in 2005

- Newly completed Job Analysis for an Ambulatory Surgery sterile processing technician exam
- Ambulatory Surgery is the fastest growing segment of healthcare today
- Exam will be offered for the first time in April 2005
- 125 multiple choice questions

Exam Content

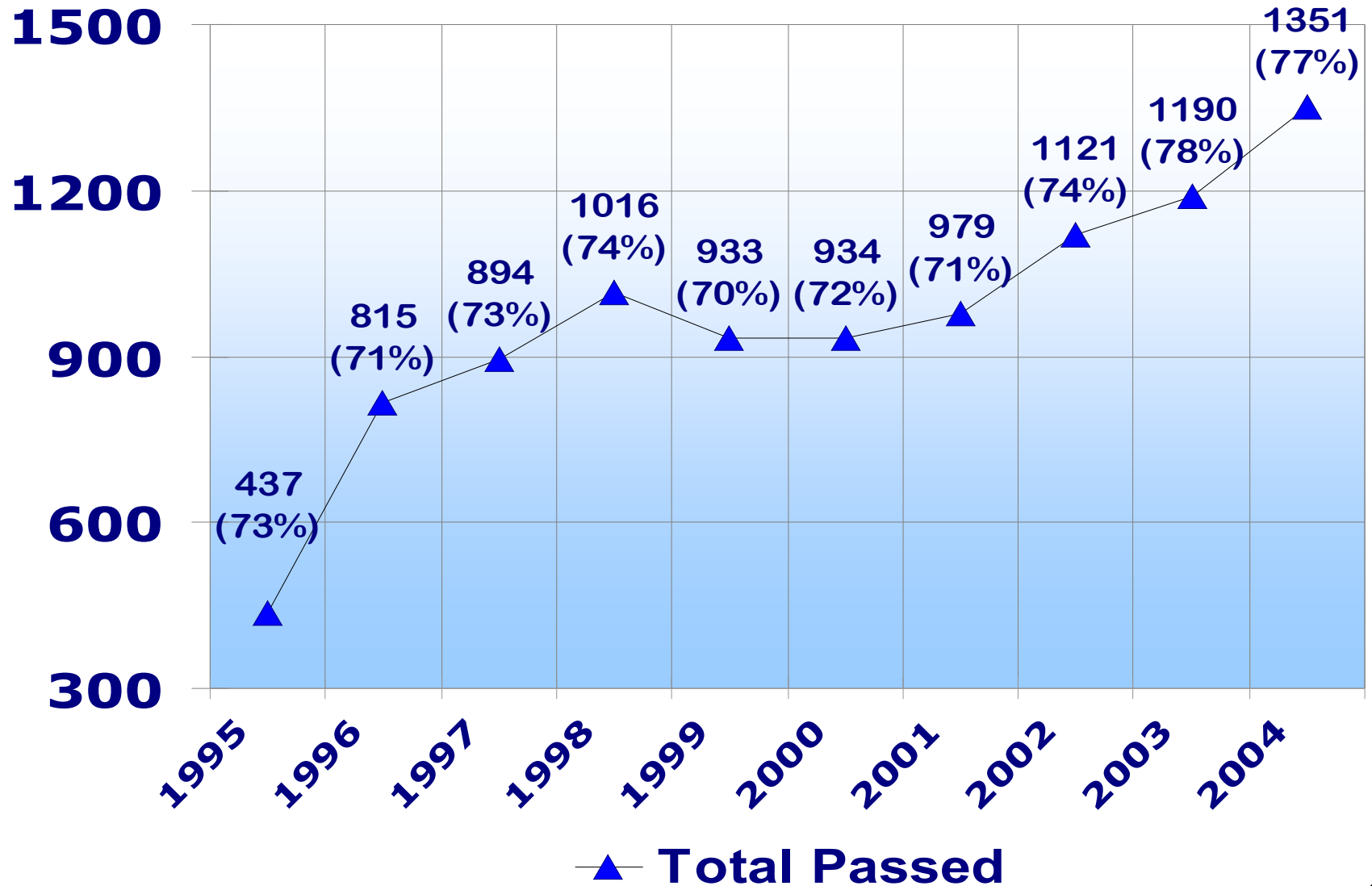
- Roles and Responsibilities – 15%
- Life Sciences – 10%
- Decontamination – 25%
- Preparation and Handling – 20%
- Sterilization – 25%
- Sterile Storage/Distribution – 5%

Re-certification for Technicians

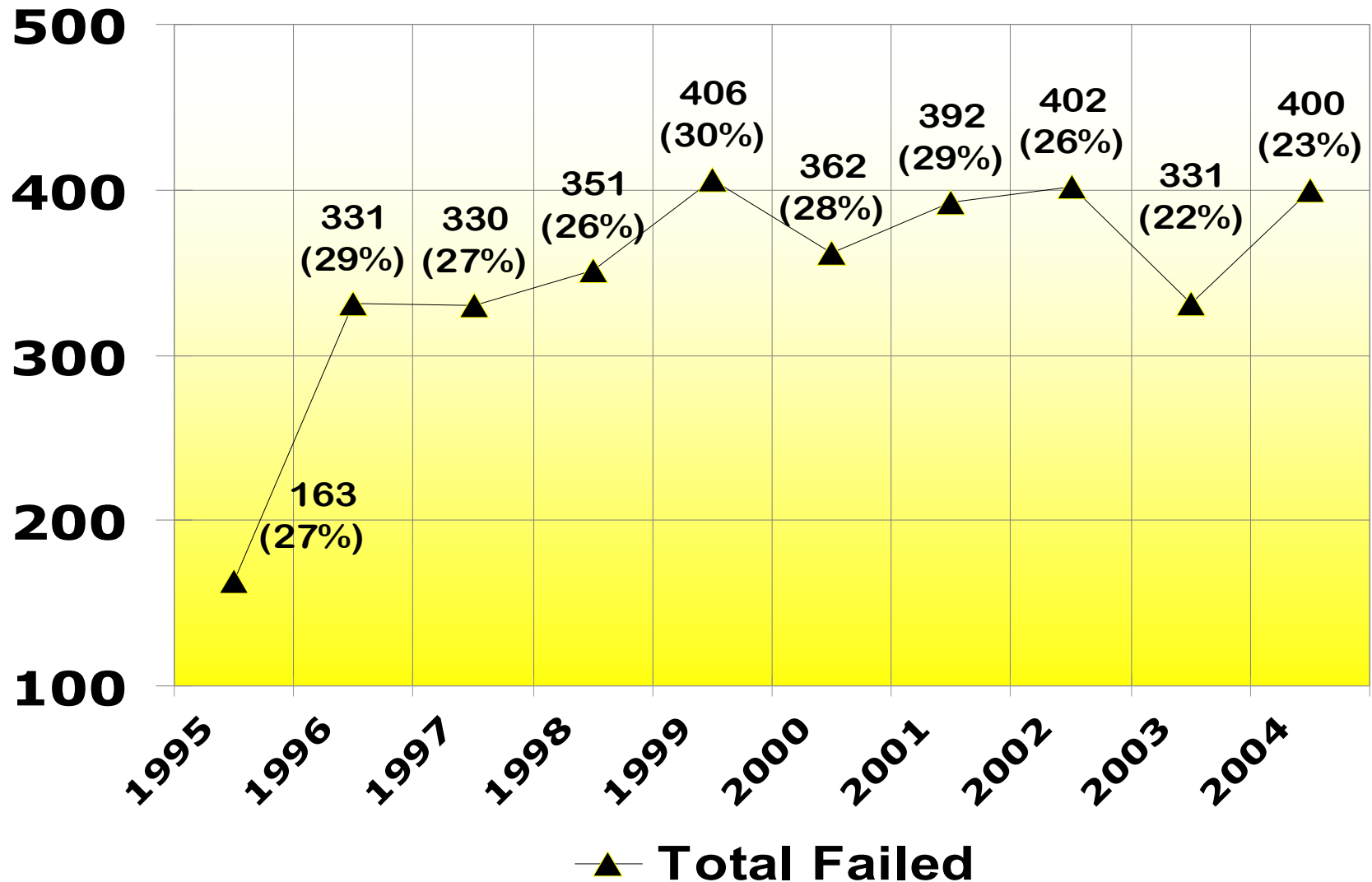
- Need to document your continued competency to retain your credential
- Technicians must accumulate 100 points over the 5 year period
- Work = 10 points/yr full time
- Remainder from education
- In 2006 will require open book test of 25 questions

Statistical Analysis of Candidates for Last Ten Years

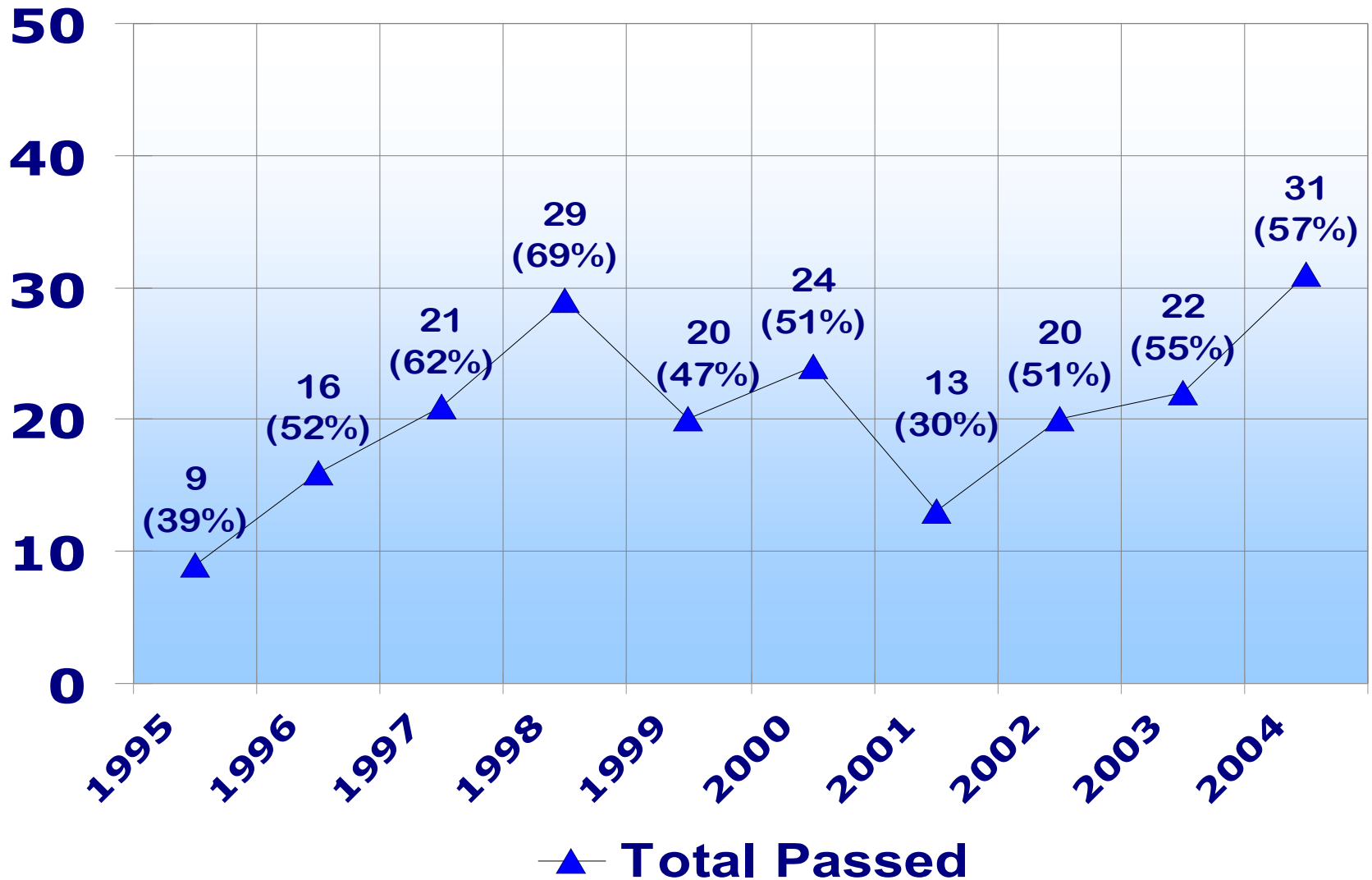
1995 to 2004 Pass Trend Technicians



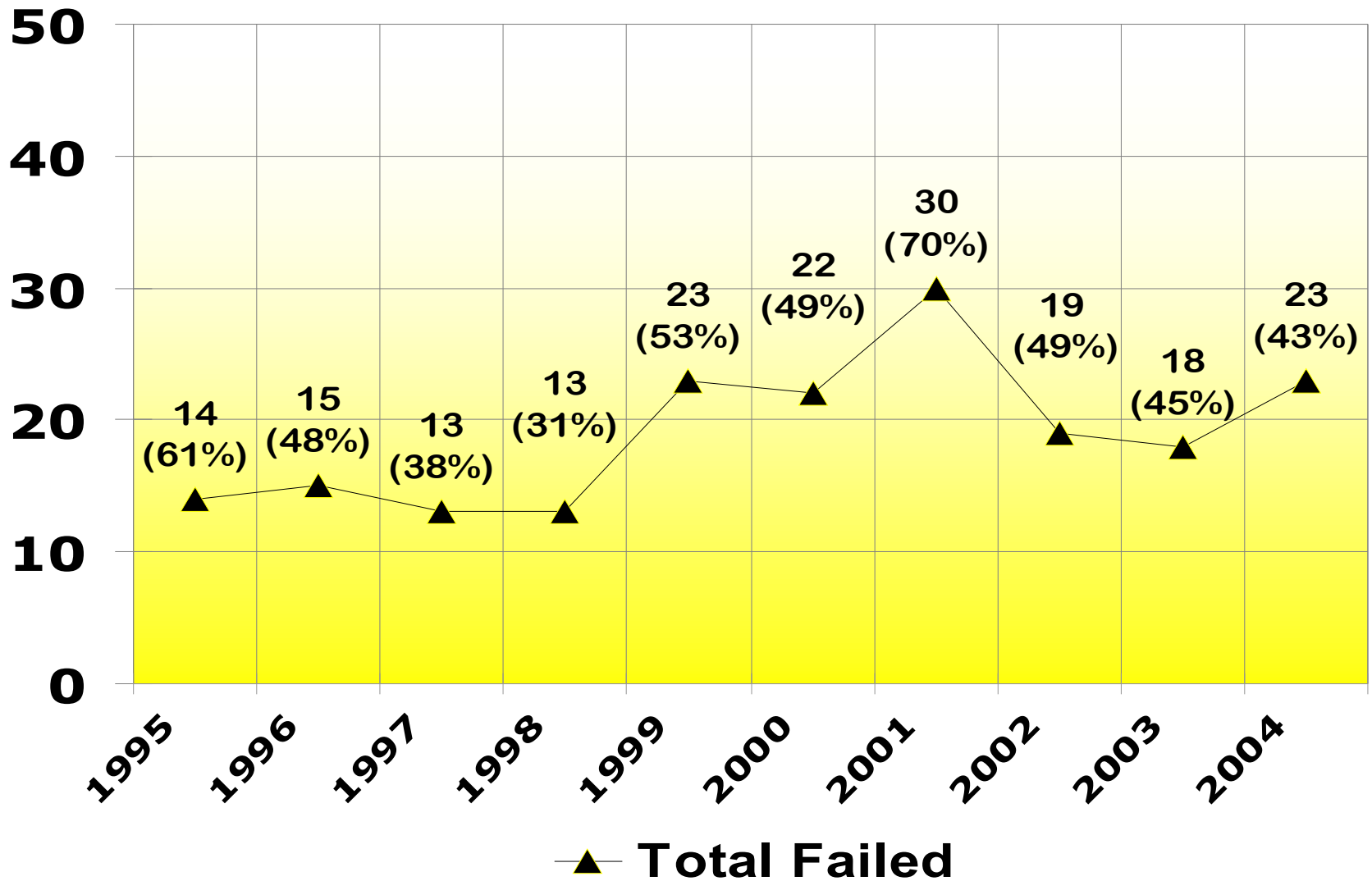
1995 to 2004 Fail Trend Technicians



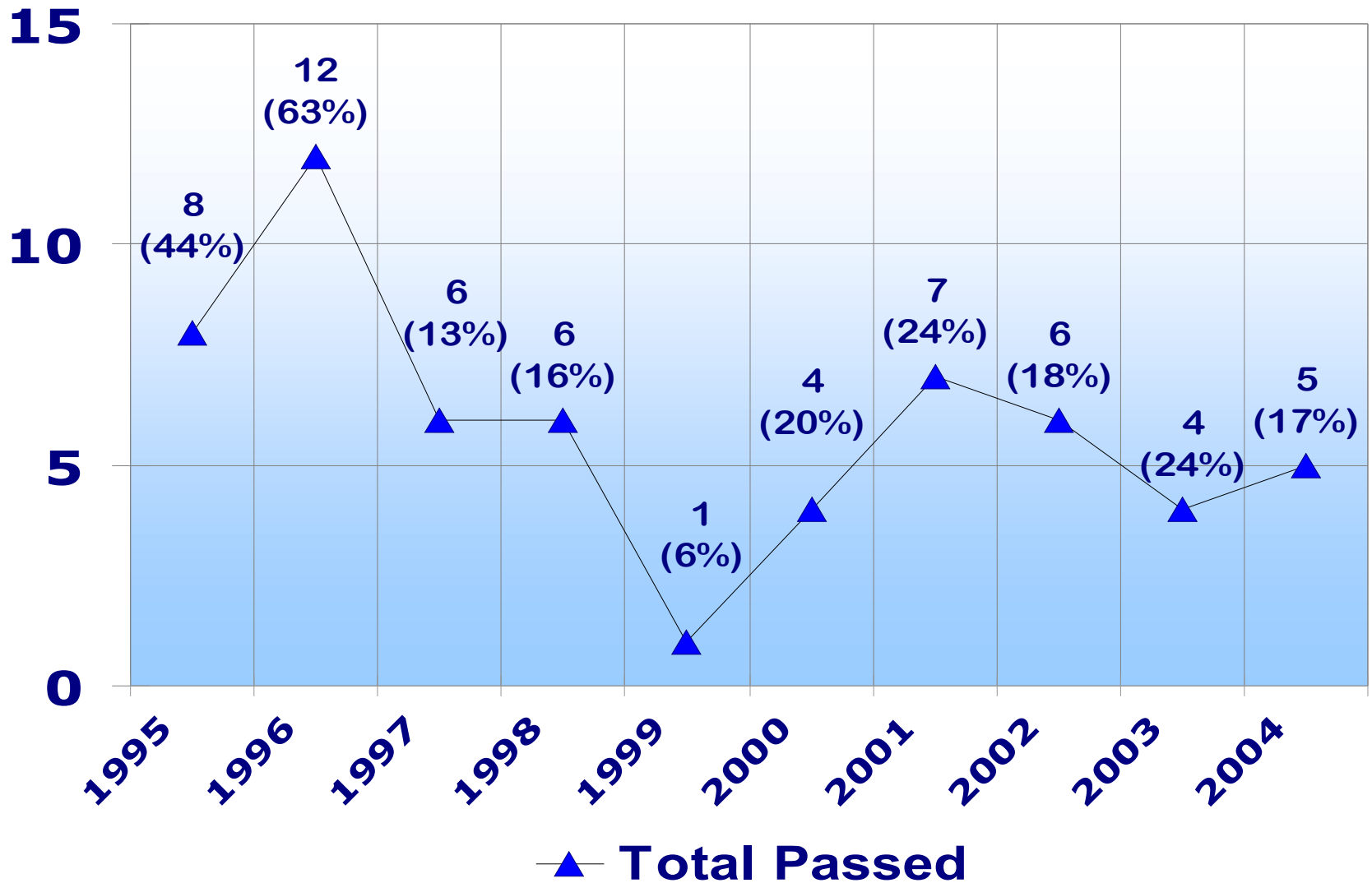
1995 to 2004 Pass Trend Supervisors



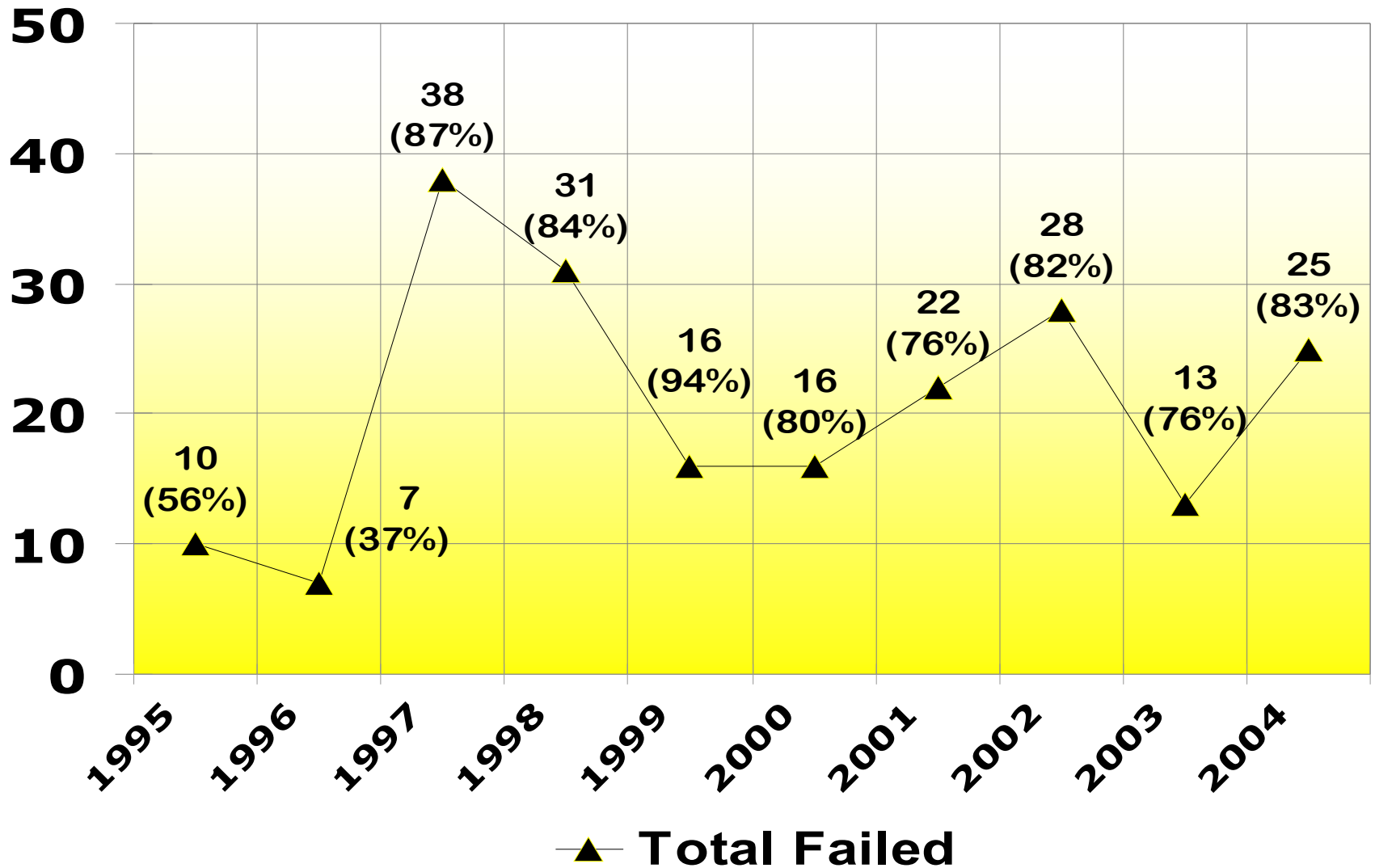
1995 to 2004 Fail Trend Supervisors



1995 to 2004 Pass Trend Managers



1995 to 2004 Fail Trend Managers



Re-certification for Supervisors & Managers

- Managers and Supervisors require 150 points over the 5 year certification period
- Only 5 points per year for working
- Most points must come from Continuing Education
- Can also earn points for publishing scientific papers and presenting lectures

Benefit of Certification

- Certification forces education
- Candidates will not sit for the exam unless they study
- This promotes the development of training programs
- Encourages continuing educational offerings

CEUs

- To verify competence - need to obtain CEU points **in the same content areas as the exam to simulate re-taking the exam**
 - Life Sciences; Decontamination, Chemical Disinfection, Sterilization, Surgical Instruments, Preparation and Packaging, Sterile Storage, Inventory Control and Supply Distribution

Benefits of Certification

- Enhances the profession
- Once the criteria are established, more individuals should move towards competence
- Job security - competent individuals perform better and are more likely to get promoted

Benefits of Certification

- Once competencies are identified, education and training programs can focus on these areas
- Identifies those individuals who have met the competencies for the profession
- Competencies based upon measurable standards of the profession

Summary.....

- Individuals working in Central Service should be recognized as **professionals who are an integral part of the medical-surgical team**
- **Salaries need to be commensurate with the responsibilities of the job; certification is a valid method to verify competency**

Summary.....

- We should develop educational programs to prepare candidates for competency testing
- Thorough training and continuing education essential
- Certification on **all levels (employee and management)** should be mandatory

Summary...

- Educational programs, Inservices and Seminars should be structured to complement the certification process and to foster continued competence
- Managers need to support certification and continuing education for their subordinates

Summary....

- Certification programs provide valuable information on the changes in the profession
- Organizations can direct training and continuing education programs to meet the changes

Summary....

- The cost for certification is small when compared to the benefits
 - improved work performance
 - improved self esteem
 - successful patient outcomes
 - employee satisfaction
- Organizations should encourage their Ministries of Health to require certification

Summary....

- Our profession should demand no less in this challenging and changing healthcare environment

